

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization International Bureau



(43) International Publication Date  
20 January 2005 (20.01.2005)

PCT

(10) International Publication Number  
WO 2005/006747 A1

(51) International Patent Classification<sup>7</sup>: H04N 5/92 (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(21) International Application Number: PCT/JP2004/010155

(22) International Filing Date: 9 July 2004 (09.07.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data: 60/486,844 11 July 2003 (11.07.2003) US

(71) Applicant (for all designated States except US): MAT-SUSHITA ELECTRIC INDUSTRIAL CO., LTD. [JP/JP]; 1006, Oazakadoma, Kadoma-shi, Osaka 5718501 (JP).

(72) Inventors; and

(75) Inventors/Applicants (for US only): MCCROSSAN, Joseph. OKADA, Tomoyuki.

(74) Agent: NAKAJIMA, Shiro; 6F, Yodogawa 5-Bankann, 2-1, Toyosaki 3-chome, Kita-ku, Osaka-shi, Osaka 5310072 (JP).

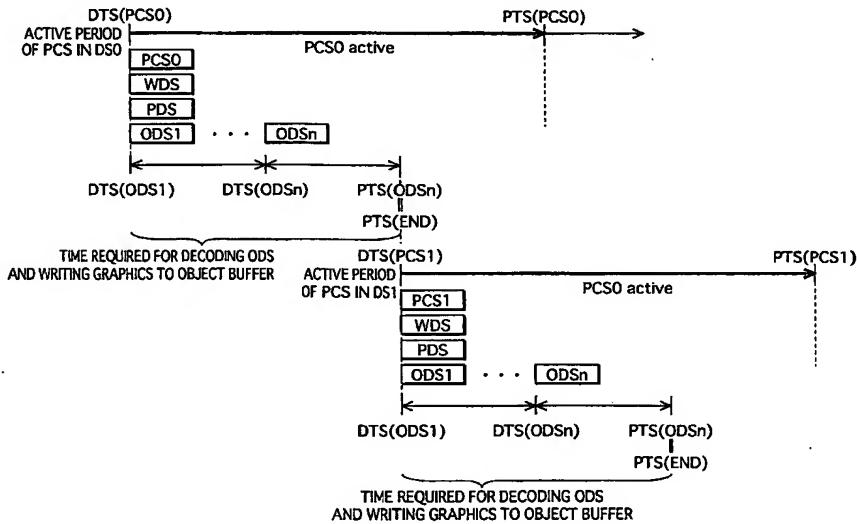
(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

[Continued on next page]

(54) Title: RECORDING MEDIUM, RECORDING METHOD, REPRODUCTION APPARATUS AND METHOD, AND COMPUTER-READABLE PROGRAM



WO 2005/006747 A1

(57) Abstract: An AV Clip generated by multiplexing video and graphics streams is recorded on a BD-ROM. The graphics stream includes a plurality of DSs (Display Sets) which are each used for graphics display. The DS includes graphics data and a control segment that includes time stamps (DTS and PTS) for designating an active period of the control segment in the DS on a reproduction time axis of the video stream. When the active period of the control segment in the DS overlaps with an active period of a control segment in an immediately preceding DS, the time stamps designate the active period of the control segment in the DS to start at or after a time at which, during the active period of the control segment in the immediately preceding DS, transfer of graphics generated by decoding graphics data in the immediately preceding DS to an Object Buffer is completed.



*For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*